

**NUTRIENT CRITERIA DEVELOPMENT PLAN UPDATE**  
**FOR THE COMMONWEALTH OF VIRGINIA**

**SEPTEMBER 2017**



**DEPARTMENT OF ENVIRONMENTAL QUALITY**  
**WATER PLANNING DIVISION**  
**OFFICE OF ECOLOGY – WATER QUALITY STANDARDS PROGRAM**

## **1. Purpose**

Virginia's Nutrient Criteria Development Plan (the Plan), prepared by the Virginia Department of Environmental Quality (DEQ) in response to guidance issued by the U.S. Environmental Protection Agency (EPA), was originally submitted to EPA in 2002. The Plan has been updated in 2006, 2008, and 2010. The purpose of the Plan is to provide a framework for developing nutrient water quality standards and screening thresholds for assessment of nutrient-related water quality impacts in the Commonwealth. The Plan is subject to revision as the DEQ, EPA, stakeholders and the general public review the Commonwealth's existing water quality criteria, any revisions proposed or adopted in Virginia's Water Quality Standards, any future guidance issued by EPA, and in response to water quality conditions that may change over time.

This Plan update fulfills one of the commitments made by DEQ as part of EPA's Performance Partnership Grant work plan. The updated Plan reflects:

- results from the work done to date related to nutrient criteria and screening threshold development,
- recent developments in nutrient-related criteria and guidance, implementation strategies, and data collection efforts, and
- updated and revised milestones.

## **2. Background**

In addition to past EPA guidance, DEQ has considered a more recent EPA document in drafting this update; a September 2016 memo entitled "[Renewed Call to Action to Reduce Nutrient Pollution and Support for Incremental Actions to Protect Water Quality and Public Health](#)".

The key elements in that September 2016 memo were:

- Keeping the Focus on Nutrient Reductions from All Sources
- Prioritizing Watersheds and Setting Load Reduction Goals
- Reducing Point Sources of Nutrient Pollution
- Reducing Nutrient Loads from Nonpoint Sources
- Continued Progress on Developing Nutrient Criteria: *"EPA will continue to strongly encourage and support states and tribes as they develop numeric nutrient criteria and numeric translators for the narrative standards and will continue to track progress towards adoption of numeric nutrient criteria into water quality standards"*
- Financial Assistance, including for Incremental Actions Focused on Public Health Risks

## **3. Existing Nutrient Criteria, Regulatory Requirements and Nutrient Reduction Efforts**

### **A. Chesapeake Bay and Tidal Tributaries Criteria**

Criteria to protect the Chesapeake Bay and its tidal tributaries from nutrient over-enrichment were approved by EPA and became effective in Virginia in 2005 ([9VAC25-260-185](#)). Site-specific criteria were developed with EPA Region 3 input and assistance for the tidal Mattaponi, Pamunkey, and James rivers ([9VAC25-310](#). aa & bb). Those criteria were approved by EPA and became effective in 2006.

Virginia is a full partner in the federal/interstate Chesapeake Bay Program (CBP), as evidenced most recently by the Governor's signature on the 2014 Chesapeake Bay

Watershed Agreement. The Commonwealth has a long-standing commitment and well documented record of activities to achieve its share of the nutrient and sediment reductions needed to comply with the Bay Total Maximum Daily Load (TMDL), established by EPA in December 2010. EPA and the Bay jurisdictions have adopted extensive measures to ensure accountability for reducing pollution and meeting target dates for progress under the Bay TMDL. Part of this accountability framework includes short-term milestones to increase restoration work and ensure progress. The two-year milestones represent key check points on the way to having all pollution reduction measures in place by 2025 to restore the Bay and its tidal rivers, with commitments made to have 60% of the necessary TMDL nutrient and sediment reductions in place by 2017. More details on the Bay TMDL milestones are accessible at:

<https://www.epa.gov/chesapeake-bay-tmdl/chesapeake-bay-milestones>

The Bay TMDL is the largest inter-state nutrient reduction program in the U.S., and the level of effort and dedication of resources supporting Virginia's Bay Watershed Implementation Plan (WIP) is substantial. The overall goal of the Bay TMDL is to achieve Bay-wide water quality criteria for dissolved oxygen, clarity and underwater grass acreages, as well as specific pH and numeric chlorophyll criteria applicable in Virginia's estuarine tributaries. Although these second-order indicators of nutrient enrichment are not themselves numeric total nitrogen (TN) or total phosphorus (TP) criteria, they are direct measures that support the aquatic life use and translate into quantifiable TN and TP loadings under the TMDL.

Virginia's current "[WIP II](#)", finalized in March 2012, documents a mix of regulatory and non-regulatory programs effectively reducing nutrients across all sources, both point and nonpoint source. Planned levels of future best management practice implementation, particularly for non-regulated NPS, are extensive, unprecedented and will depend mainly on voluntary/cooperative approaches and require significant financial and technical assistance. The importance of the Bay WIP as a component of Virginia's Nutrient Criteria Development Plan cannot be underestimated.

The CBP jurisdictions depend on a complex set of linked models to simulate implementation of nutrient control measures over time and the resulting total nitrogen and total phosphorus load reductions, as well as simulated water quality response under future conditions using various loading reduction scenarios. The newest Phase 6 iteration of the CBP Watershed Model (WSM) was just released to the partnership in June 2017 for "fatal flaw" review, and will be a primary factor in the 2017 "Mid-Point Assessment" (MPA) of the TMDL. The CBP modeling framework (WSM linked to the Time-Variable Water Quality Model), is the only common tool the CBP partners have to predict the load reductions needed and where they are implemented, to achieve water quality standards. Virginia's share of the load reductions needed to meet the Bay TMDL may be confirmed at current levels or could potentially be markedly changed depending on the outcome of the MPA. Final Bay TMDL load reduction allocations will not be finalized (under the current schedule) until March-April 2018, and this Plan may need to be further modified depending on the outcome of the MPA.

## **B. Lake and Reservoir Criteria**

EPA approved numeric criteria for total phosphorus and chlorophyll ‘a’ for selected manmade reservoirs and both of Virginia's natural lakes in 2007 ([9VAC25-260-187](#)). Agency guidance provides direction to staff on how to implement lake/reservoir water quality monitoring and assessment. The list of lakes and reservoirs in Section 187 was developed from three Virginia DEQ sources: 1) the significant lake list for the agency (2002 targeted lake monitoring guidance), 2) the revised significant lakes list for 2006, and 3) 59 lakes and reservoirs monitored by DEQ between 1990 and 2003. These were also included in the analysis for nutrient criteria development. These are the lakes and reservoirs that DEQ has monitored previously, currently is monitoring or will be monitoring in upcoming assessment cycles. Total phosphorus and chlorophyll ‘a’ are part of the minimum parameter list for which the lakes/reservoirs in Section 187.b are monitored. The reservoir-monitoring program targets Virginia’s largest reservoirs and others by prioritizing the significance based on several criteria. Generally, the largest reservoirs are sampled every year, and the others are sampled based on a rotating schedule. For the 2017 monitoring cycle, 114 reservoirs are being sampled.

Of 123 reservoirs for which nutrient criteria apply, 7 have been assessed as impaired for nutrient criteria exceedances. Of the lakes/reservoirs assessed as impaired with nutrients as the cause, no TMDLs have yet to be developed, however there are plans to prioritize them for the next TMDL/TMDL- alternative window.

## **C. Waterbody-Specific Local TMDLS**

Numerous nutrient-specific local TMDLs and their associated load and waste load allocations have been approved by EPA. TMDLs are developed when an impairment has been identified (for example through low benthic scores or high chlorophyll-a levels) and subsequently attributed to nutrient enrichment. Local TMDLs for nutrients exist both inside and outside the Chesapeake Bay watershed.

As of June 2016, EPA has approved 44 TMDL equations for total nitrogen (5 outside of the Bay watershed) and 58 TMDL equations for total phosphorus (19 outside of the Bay watershed) since the inception of DEQ’s TMDL program. Ten percent of all TMDLs approved by EPA (approximately 1,000) have been prescribed for nutrients.

In addition, as of 2016, DEQ has developed 679 bacteria TMDLs and 80 sediment TMDLs that when implemented rely on many of the same best management practices used to control nonpoint source input of nutrient loads. Implementation plans targeting bacteria and sediment have the coincidental benefit of reducing, to some extent, the nitrogen and phosphorus coming with the runoff.

## **D. Nutrient Enriched Waters**

In addition to the point source nutrient controls applicable to the river basins comprising Virginia’s Chesapeake Bay Watershed, other requirements apply for the control of nutrient-related water quality impacts for waterbodies designated as “nutrient enriched”. The Water Quality Standards Regulation (9VAC25-260) identifies Nutrient Enriched Waters (Sections [260-330](#) and [260-350](#)), specifically Smith Mountain Lake and

tributaries, the New River and tributaries, Peak Creek, and the tidal Blackwater River. Dischargers to these waters, meeting certain annual nutrient load and design flow criteria, are given TP limits in their VPDES permit in accordance with the Regulation for Nutrient Enriched Waters ([9VAC25-40](#)). This Regulation also reserves the right of the State Water Control Board to impose further limitations on discharges of phosphorus or other nutrients, as well as receive petitions to consider rulemakings to control nutrients entering tributaries to "nutrient enriched waters" of an adjoining state.

#### **E. Occoquan Watershed Policy**

In 1971, the State Water Control Board adopted a comprehensive pollution abatement and water quality management policy for the Occoquan watershed in northern Virginia. [The Occoquan Policy](#) set stringent treatment and discharge requirements in order to improve and protect water quality, particularly since the waters are an important water supply for almost a million residents in the area. The SWCB adopted revisions to this Policy in 1980, which became effective in 1981; additional amendments became effective in 1990. Among the numerous requirements affecting such factors as the number of allowable discharges, their location, and plant design, the Policy requires high-performance nutrient effluent limits be met:

- Unoxidized nitrogen (as TKN) = not to exceed 1.0 mg/l monthly average; nitrogen removal facilities required to operate when the ambient nitrate concentration (as N) is 5.0 mg/l or higher in the Occoquan reservoir in the vicinity of the Fairfax County Water Authority intake point
- Total Phosphorus = not to exceed 0.10 mg/l monthly average

#### **F. Policy for the Potomac Embayments**

In 1996, the State Water Control Board adopted a policy (9VAC25-415: Policy for the Potomac Embayments) to control point source discharges of conventional pollutants into the Virginia embayment waters of the Potomac River, and their tributaries, from the fall line at Chain Bridge in Arlington County to the Route 301 bridge in King George County. [The Potomac Embayment Policy](#) sets stringent effluent limits for BOD<sub>5</sub> and total suspended solids, as well as for nutrients:

- Ammonia Nitrogen (April 1 – Oct 31) = not to exceed 1.0 mg/l monthly average
- Total Phosphorus = not to exceed 0.18 mg/l monthly average

#### **G. Chickahominy Watershed Effluent Limitations**

Special effluent limits apply to wastewater treatment facilities in the entire Chickahominy watershed (a tributary of the James River) above Walker's Dam, excluding discharges consisting solely of stormwater. These limits include:

- Ammonia Nitrogen = not to exceed 2.0 mg/l monthly average as N
- Total Phosphorus = not to exceed 0.10 mg/l monthly average for all discharges with the exception of Tyson Foods, Inc. which shall meet 0.30 mg/l monthly average and 0.50 mg/l daily maximum

#### **4. Future Actions under this Plan**

##### **A. Summary of Ongoing and New Tasks; Timelines**

The following future **ongoing** actions are expected under the Plan, subject to availability of resources:

- Add additional lakes and reservoirs to the impaired waters list based on new monitoring data or if newly constructed – no end date
- Continued local TMDL development and implementation statewide (TN, TP, and bacteria) – no end date
- Continued Chesapeake Bay TMDL implementation – through 2025
- James River chlorophyll criteria revisions - 2018
- Continued use of narrative standard and observed effects:
  - Stressor analysis for benthic impairments – ongoing
  - Shenandoah River algae field work and assessment method – 2018 IR

The following future **new** actions are expected under the Plan, subject to availability of resources:

- Use of narrative standard and observed effects:
  - Develop impairment thresholds based on Harmful Algal Bloom (HAB) advisories for freshwater recreation and/or drinking water use in coordination with Virginia Department of Health - potential target date 2020 IR
  - Field test potential nutrient screening levels for aquatic life use protection
    - Start in 2018 in Roanoke River basin, working with the AAC and DEQ Regional Office staff
    - Expected outcome: confirmation of TN/TP concentrations that can be used as screening values for triggering benthic assessments in streams - potential target date 2022 IR
- Review data based on HABs, aquatic life use screening and filamentous algae actions every six years as part of IR to determine need for numeric criteria – first review 2024 IR

The table in Appendix A integrates information on the ongoing and new activities under the Plan, detailing the types of waterbodies addressed, citations for regulatory requirements, and additional details for actions and anticipated milestones.

##### **B. Major Initiatives**

DEQ is continuing action into the future on three major nutrient-related initiatives, and because of their importance additional details are provided in the following sections.

##### **1) Nutrient Screening Approach for Free-Flowing Waters**

EPA offers three approaches to the development of nutrient criteria: (1) Use EPA's criteria development Technical Guidance Manual, (2) Use EPA's 304(a) Criteria Recommendations, or (3) Use another scientifically defensible method.

Since 2002, DEQ has been consulting with and utilizing the expertise of an Academic Advisory Committee (AAC), stakeholders, and technical staff in other State agencies and determined that EPA approaches (1) and (2), which recommend a simple percentile of

measured concentrations as the threshold for water quality impairment due to nutrients, were not clearly and specifically linked to aquatic life use support, and therefore not the best approach for criteria development. Rather, criteria should be set in relation to biological impacts and protecting designated uses. DEQ is evaluating approach (3), “Other “Scientifically Defensible Methods”, for development of nutrient criteria in free flowing, non-tidal waters, having determined that this is most consistent with Virginia’s needs, good science, and the intent of the water quality standards. Option 3 would most directly tie nutrient concentrations to actual impacts, provide for Virginia specific approaches using in-state and regional data, and is believed to be the most scientifically defensible approach. In 2012, the AAC produced a report, “A Screening Approach for Nutrient Criteria in Virginia”, which proposed a three-step method that uses (1) threshold concentrations to indicate clear positive or negative effects of nutrients, (2) a visual assessment to further delineate clear positive effects, and (3) in lieu of an inconclusive association with nutrients in the first two steps, a biological assessment to determine impact on the aquatic life use. The 2012 report and subsequent updates and supporting technical documents are available at DEQ’s webpage for [Nutrient Criteria Development](#) (for streams and rivers). DEQ intends to continue development of the screening approach, with plans to field test potential screening values for subsequent benthic monitoring in streams as early as 2018, if resources allow.

## **2) Shenandoah River Algae**

During the public comment period for both the 2012 and 2014 303(d)/305(b) Water Quality and Impaired Waters Integrated Report (the IR), DEQ received comments from citizens regarding the presence of algae in the Shenandoah River and concerns about recreation designated use impairment. DEQ determined that there was uncertainty about the attainment status of the recreation use for 5 stream segments (comprising 25 stream miles) and these waters were classified as having an observed effect, but insufficient data to determine whether or not the recreation use is supported. These segments were prioritized for follow-up monitoring in 2016 and 2017 by DEQ to develop and test field methods for estimating the amount of filamentous algae that are scientifically based, defensible and reproducible. DEQ has made additional commitments for future activities, including decisions on thresholds for algal coverage that constitute a "nuisance" condition and impairment under the general narrative water quality standard, and inclusion of such thresholds in DEQ's guidance for the 2018 IR.

Ongoing and future activities to address this issue include:

- collect additional field data during the 2017 growing season;
- further develop the Monitoring Plan to define sample intervals;
- propose impairment thresholds and assessment methods based on 2016 and 2017 data results;
- hold a public webinar in fall 2017 to present updated findings and recommendations to the public;
- incorporate decisions on impairment thresholds and assessment method as well as information on monitoring results in the 2018 Integrated Report;
- work with local citizen monitoring groups to determine meaningful and discrete ways in which they can assist with this effort.



DEQ will continue to consider recommendations from the Interstate Commission on the Potomac River Basin, the Academic Advisory Committee, and the Mid-Atlantic jurisdictions that comprise EPA Region III (PA, WV, MD, VA, DE and DC). Further details on this issue are available at DEQ's [Shenandoah Algae](#) webpage.

### **3) James River Chlorophyll-a Criteria Study and Rulemaking**

Virginia's numeric chlorophyll criteria for the James River estuary were adopted in 2005, in response to an aquatic life designated use impairment. However, when EPA adopted the Chesapeake Bay TMDL in 2010, more stringent nutrient reductions were needed to achieve the chlorophyll criteria according to water quality modeling results using an updated Bay Modeling framework. Before committing an estimated \$1 - \$1.5 billion dollars for the additional nutrient controls needed to meet new reduction targets, Virginia decided to conduct an extensive scientific study to:

- comprehensively review the existing chlorophyll criteria and confirm if they are protective of aquatic life,
- enhance our knowledge of the incidence and effects of harmful algal blooms, and
- improve modeling capability to test nutrient loading scenarios and standards attainability.

Both the study and the rulemaking for potential chlorophyll criteria amendments began in 2011. A Scientific Advisory Panel (SAP) was formed to provide DEQ with findings from empirical research into the impacts on aquatic life and other water quality indicators of excessive algae growth, analyses of extensive monitoring data collected over several years, and to make recommendations about revisions to the criteria, if deemed necessary. The SAP's Final Report was submitted in the spring of 2016; however the group did not reach consensus on their findings and recommendations, so several approaches were documented and provided to EPA for a peer review by the Chesapeake Bay Program's Scientific and Technical Advisory Committee (STAC). Based on comments received and further consultations with the SAP and a Technical Advisory Committee (TAC) formed as part of the rulemaking process, DEQ staff developed another approach to criteria derivation, as well as improvements to the assessment method used to gauge standards compliance. This approach was presented to the TAC in December 2016, and is being considered as the basis for potential amendments to the chlorophyll criteria. In addition to the technical work on the criteria and development of the scientific justification for revisions, Virginia State Water Control Law requires that the economic impact of proposed regulations must be considered; therefore, modeled results of various nutrient loading scenarios will be vital and informative to the rulemaking process. The Virginia Institute of Marine Science (VIMS) is under contract to make enhancements to the James River eutrophication model developed during the study, to create linkages needed to connect the Bay Program's new Phase 6 Watershed Model (WSM) to the VIMS model, and run an estimated 10-20 nutrient reduction scenarios and report on results. It is hoped that the modeling can be completed over the winter of 2017-18, but work is dependent on finalizing the Phase 6 WSM which is currently undergoing "fatal flaw" review.

If both the criteria development and modeling documentation can be completed by spring



2018, DEQ will use the information to try and build consensus among the TAC members for proposed revisions. If successful, recommended criteria and assessment method amendments may be presented to the SWCB by spring or early summer 2018, for approval to go to public review and comment. Depending on the time needed for Executive Review of the proposal, receipt and response to comments and any additional changes deemed necessary from the public review, final recommendations for the rulemaking could potentially be presented to the SWCB for adoption by the end of 2018; the results would then be submitted to EPA for review and approval (necessary before amendments become effective). Details are available through DEQ webpages for the [James River Chlorophyll Study and Nutrient Criteria Rulemaking](#).

## **5. Process for Plan Implementation**

Once the technical development phase of any element of the Plan is completed, DEQ must initiate a rulemaking process with concurrent implementation guidance development. Amendments which the DEQ proposes to make to the Water Quality Standards Regulation (9VAC25-260) must conform to the agency [Public Participation Guidelines](#) (9VAC25-11) and the [Administrative Process Act](#) (VA Code §2.2-4000 through -4032), and be approved by the State Water Control Board before submission to EPA for review and approval. Included in this process is an economic analysis conducted by the Department of Planning and Budget; any economic impact on permittees would be part of this evaluation. The State rulemaking administrative process normally takes a minimum of two years from the agency drafting of a Notice of Intended Regulatory Action (NOIRA) to final adoption. A generic rulemaking timeline is provided in Appendix B.

## Appendix A: Nutrient Criteria Plan Elements by Waterbody Type

Waterbody Type	Current Nutrient Criteria/Regulatory Requirements	Current Nutrient Reduction Activities	Proposed Nutrient Criteria Activities	Proposed Nutrient Reduction Activities
<b>Estuaries</b>	<p>9VAC25-260-185. <i>Criteria to Protect Designated Uses from the Impacts of Nutrients and Suspended Sediment in the Chesapeake Bay and Its Tidal Tributaries.</i></p> <ul style="list-style-type: none"> <li>- Numeric DO &amp; Chlorophyll a criteria for specific Chesapeake Bay segments</li> </ul> <p>9VAC25-40-70. <i>Strategy for Chesapeake Bay Watershed.</i></p> <ul style="list-style-type: none"> <li>- Technology-based effluent limits for TN and TP</li> </ul> <p>9VAC25-720. <i>Water Quality Management Planning Regulation.</i></p> <ul style="list-style-type: none"> <li>- TN and TP waste load allocations for point sources in the Chesapeake Bay watershed</li> </ul>	<p>1) Implementation of TN and TP TMDLs and Watershed Implementation Plans across Chesapeake Bay watershed</p> <p>2) VPDES permit limits across Chesapeake Bay watershed due to Bay TMDL, local TMDLs, nutrient enriched water policy</p>	<p>Revision of James River Chlorophyll-a criteria (anticipated for 2018)</p>	<p>Continued implementation of TN and TP TMDLs and Watershed Implementation Plans across Chesapeake Bay watershed; continued synergy from implementing bacteria TMDLs across Chesapeake Bay watershed</p>
<b>Free-flowing Streams &amp; Rivers - <u>wadeable</u></b>	<p>1) 9VAC25-260-20. <i>General Criteria.</i></p> <ul style="list-style-type: none"> <li>- Nutrient impacts evaluated under Narrative standard and observed effects as part of stressor analysis for benthic impairments</li> </ul> <p>2) 9VAC25-260-330 &amp; 350 <i>Nutrient Enriched Waters (Smith Mtn Lake &amp; tribs, New River &amp; tribs, Peak Creek, tidal Blackwater River) and 9VAC25-40 NEW Policy.</i></p>	<p>1) Implementation of local TN, NO3, and TP TMDLs and TMDL implementation plans statewide</p> <p>2) Implementation of Chesapeake Bay TMDLs and Watershed Implementation Plans in Chesapeake Bay watershed</p> <p>3) VPDES permit limits statewide due to Bay TMDL,</p>	<p>Continued use of narrative standard and observed effects:</p> <ul style="list-style-type: none"> <li>- Beginning in 2018, develop and implement field testing protocol for “Screening Approach for Nutrient Criteria in Virginia” based on past work by Academic</li> </ul>	<p>Continued TMDL development for impaired waters statewide in accordance with TMDL priorities, follow-up with implementation plan development and implementation; continued synergy from implementing bacteria</p>

<b>Waterbody Type</b>	<b>Current Nutrient Criteria/Regulatory Requirements</b>	<b>Current Nutrient Reduction Activities</b>	<b>Proposed Nutrient Criteria Activities</b>	<b>Proposed Nutrient Reduction Activities</b>
	<ul style="list-style-type: none"> <li>- VPDES permit limits for TP according to Policy for Nutrient Enriched Waters for designated waters outside the Chesapeake Bay watershed.</li> <li><i>9VAC25-40-70. Strategy for Chesapeake Bay Watershed.</i></li> <li>- Technology-based effluent limits for TN and TP</li> <li><i>9VAC25-720. Water Quality Management Planning Regulation.</i></li> <li>- TN and TP waste load allocations for point sources in the Chesapeake Bay watershed</li> </ul>	local TMDLs, nutrient enriched water policy	<p>Advisory Committee</p> <ul style="list-style-type: none"> <li>- For 2018 IR, development of observed effects/impairment thresholds for algae impacts on recreation use</li> <li>- For 2020 IR, development of observed effects/impairment thresholds based on freshwater HAB advisories for recreation and/or drinking water use in coordination with VDH</li> <li>- For 2022 IR, development of observed effects/impairment thresholds based on “Screening Approach for Nutrient Criteria in Virginia”</li> <li>- Starting with 2024 IR, review data every six years as part of IR to determine need for numeric criteria</li> </ul>	TMDLs statewide
<b>Freeflowing Streams &amp; Rivers – <u>non-wadeable</u></b>	<p>2) 9VAC25-260-330 &amp; 350 <i>Nutrient Enriched Waters (Smith Mtn Lake &amp; tribs, New River &amp; tribs, Peak Creek, tidal Blackwater River) and 9VAC25-40 NEW Policy.</i></p> <ul style="list-style-type: none"> <li>- VPDES permit limits for TP</li> </ul>	<p>2) Implementation of Chesapeake Bay TMDLs and Watershed Implementation Plans in Chesapeake Bay watershed</p> <p>2) VPDES permit limits statewide due to Bay TMDL,</p>	Same as for wadeable streams	Same as for wadeable streams

<b>Waterbody Type</b>	<b>Current Nutrient Criteria/Regulatory Requirements</b>	<b>Current Nutrient Reduction Activities</b>	<b>Proposed Nutrient Criteria Activities</b>	<b>Proposed Nutrient Reduction Activities</b>
	<p>according to Policy for Nutrient Enriched Waters for designated waters outside the Chesapeake Bay watershed.</p> <p><i>9VAC25-40-70. Strategy for Chesapeake Bay Watershed.</i></p> <p>- Technology-based effluent limits for TN and TP</p> <p><i>9VAC25-720. Water Quality Management Planning Regulation.</i></p> <p>- TN and TP waste load allocations for point sources in the Chesapeake Bay watershed</p>	local TMDLs, nutrient enriched water policy		
<b>Lakes &amp; Reservoirs</b>	<p><i>9VAC25-260-187. Criteria for Man-Made Lakes and Reservoirs to Protect Aquatic Life and Recreational Designated Uses from the Impacts of Nutrients.</i></p> <p>- Numeric Chlorophyll a &amp; TP criteria for specific list of lakes and reservoirs</p>	N/A	Adding additional lakes and reservoirs to the list based on new monitoring data or if newly constructed (ongoing)	Same as for wadeable streams

**APPENDIX B:** Administrative Process for Plan Implementation

